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# Some Wild Edible Plants of Tosya District (Kastamonu, Turkey)\*

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#### **Abstract**

The study was carried out between 2014-2016 to determine the ethnobotanical characteristics of the Tosya district. For this purpose, in the field studies, Tosya center and villages have been visited and plant specimens were collected and to get information about the used parts of plants. Their local names and their usage patterns were recorded. Face-to-face interviews were conducted with 200 people which are 110 female and 90 male. In addition, a survey about 'edible plants' was applied to 217 people. According to the results of the interviews and surveys, 22 natural plant taxa, the most common use as food, were determined. These are: Scorzonera laciniata subsp. laciniata, Taraxacum serotinum, Tragopogon latifolius var. angustifolius, Tragopogon longirostris var. abbreviatus, Capsella bursa-pastoris, Sinapis arvensis, Silene vulgaris var. vulgaris, Stellaria media subsp. media, Chenopodium album subsp. album var. album, Bryonia alba, Origanum sipyleum, Thymus sipyleus subsp. rosulans, Malva sylvestris, Plantago lanceolata, Plantago major subsp. major, Polygonum cognatum, Rumex acetosella, Rumex crispus, Rumex obtusifolius, Rumex scutatus, Portulaca oleracea, Urtica dioica.

Keywords: Ethnobotany, Tosya, wild edible plants, food source.

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# Tosya İlçesinin Bazı Yabani Besin Bitkileri (Kastamonu, Türkiye)

#### Özet

Bu çalışma 2014-2016 yılları arasında Tosya ilçesinin etnobotanik özelliklerinin belirlenmesi amacıyla yapılan araştırmanın yenilebilen bazı doğal bitkilerini kapsamaktadır. Tosya merkez ve köylerinde yapılan arazi çalışmalarında bitki örnekleri toplanarak bitkilerin kullanılan kısımları, yöresel isimleri ve kullanılış biçimleri hakkındaki bilgiler kaydedilmiştir. Çalışmada 90'ı erkek 110'u kadın olmak üzere toplam 200 kişi ile röportaj yapılmıştır. Ayrıca 217 kişiye yenen bitkiler ile ilgili anket uygulanmıştır. Röportaj ve anket sonuçlarına göre gıda olarak kullanımı en yaygın olan 22 doğal bitki taksonu tespit edilmiştir. Bunlar: *Scorzonera laciniata* subsp. *laciniata*, *Taraxacum serotinum*, *Tragopogon latifolius* var. *angustifolius*, *Tragopogon longirostris* var.



abbreviatus, Capsella bursa-pastoris, Sinapis arvensis, Silene vulgaris var. vulgaris, Stellaria media subsp. media, Chenopodium album subsp. album var. album, Bryonia alba, Origanum sipyleum, Thymus sipyleus subsp. rosulans, Malva sylvestris, Plantago lanceolata, Plantago major subsp. major, Polygonum cognatum, Rumex acetosella, Rumex crispus, Rumex obtusifolius, Rumex scutatus, Portulaca oleracea, Urtica dioica'dır.

Anahtar Kelimeler: Etnobotanik, Tosya, Yenen bitkiler, Gıda kaynağı.

#### 1. Introduction

The relationship between man and plants is as old as human history. In the course of time, humans learned to identify plants in the nature, benefit from them and developed different forms of usage. Some plants have been used as food sources and some of them in the treatment of diseases, for centuries (Yıldırımlı, 2004). In terms of plant diversity Turkey is one of the richest countries. Researchers have been carried out studies on medicinal plants for a long time. However, wild edible plants have been studied for the last 15-20 years. In the light of these surveys, it is reported that the total number of plants used as food approximately 1200 in our country (Ertuğ, 2014).

Anatolia has a rich 'herb culture'. Many wild plants are collected and used as food commonly. The informations about these edible plants in Turkey were created a cultural heritage to transferred from generation to generation. This culture must be recorded and this rich heritage must be prevented from disappearing (Baytop, 1884; Yıldırımlı, 2004). In this regard, the aim of the study is to collect information about the wild edible plants usages in Tosya district before they are completely lost.

The study area is situated in Black Sea Region, at the transition region between Irano-Turanian and Euro-Siberian phytogeographical regions, in southeast of the Kastamonu province, surrounded by Kastamonu-Çankırı and Çorum provinces (Figure 1). The research area is 1195 km², the altitude is 850 m. Tosya district has 23 neighborhoods and 53 villages (T.C. Tosya Kaymakamlığı Brifing, 2013; tosya.bel.tr, 2017).

The research area located at a very important point in terms of transportation. The highway which is connecting the west of the country to the east and north passes through the middle of the district. This highway route was known as Silk Road. Due to the fact that it was established on the Silk Road, it has been one of the most important trade centers in Anatolia, in the past (İbret, 2003; İbret, 2013). Nowadays, Tosya is a district that stands out with its viticulture and rice production.

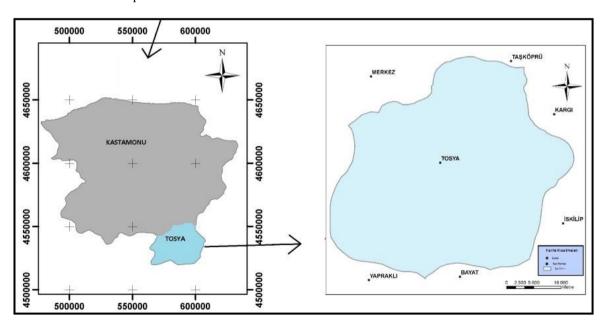


Figure 1. Geographical Location of the Research Area



#### 2. Materials and Methods

This study was carried out in Tosya center and 53 villages (including neighborhoods, uplands and the other sites), it is a part of the PhD thesis named "Flora and Ethnobotany of Tosya District (Kastamonu)" (Tuttu, 2017). The plants specimens were collected and photographed with the help of the informants, between 2014-2016. Their local names, used parts and their usage patterns have been recorded. The specimens were identified by using 'Flora of Turkey and the East Aegean Islands' (Davis 1965-1985; Davis et al. 1988; Güner et al. 2000). All specimens were pressed and dried using the standard herbarium methods.

In the field studies, face-to-face interviews were conducted with 200 people which are 110 female and 90 male. Also we went to Bazaar to get information from sellers. In addition the plants were photographed sold in the Bazaar and information about used parts of the plants were recorded. In addition, a survey about 'edible plants' was applied to 217 people, with the aid of students (Ertuğ, 2003; Figure 2).

ETNOBOTANİK PROJESİ - ÖĞRENCİLERE VERİLEN FORMLAR								
P								
Bilgiyi kaydeden öğrencinin adı:								
Simfi:								
Tarih:								
Konuşulan kişinin adı, soyadı:								
Yaşı :	Yaşı :							
Yaşadığı yer:	Yaşadığı yer:							
Adresi:								
Konuşulan kişiye yakınlık: (büyükanne, dede, komşu gibi)								
, womya g.o.,								
YENEN OTLARA İLİŞKİN ALINAN BİLGİLER:								
		Neler Yapılır? (börek/	Nasıl pişirilir? İçine					
Otun Adı	Kullanılan kısmı	salata/kavurma gibi)	neler konur?					
		1						

Figure 2. Survey Sample About Edible Plants

## 3. Results and Discussion

According to the results of the interviews and surveys, 22 taxa, the most common use as food, were determined. These are represented in Table 1. Photos of some plants which were taken from the study area are given in Figure 3.



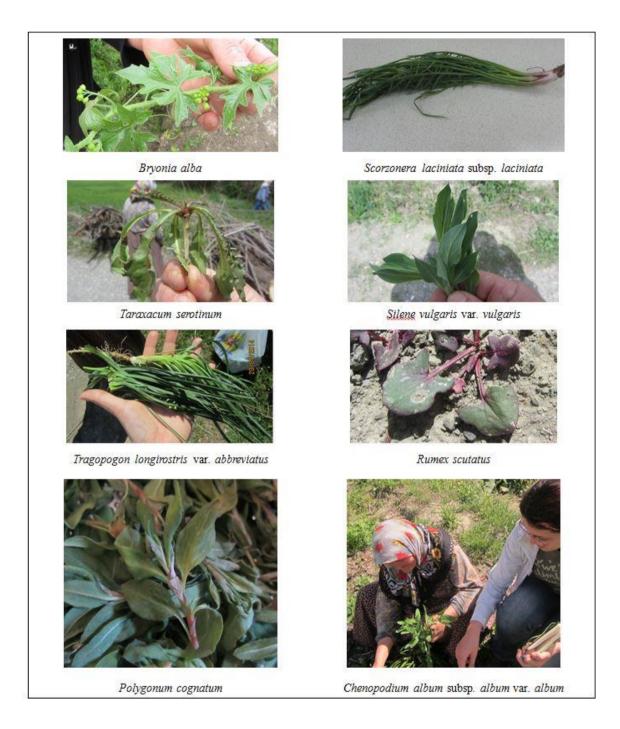


Figure 3. Some Wild Edible Plants of Tosya



Table 1. Some wild edible plants of Tosya District

Family	Botanical name	Local name	Used part	Usage
Asteraceae	Scorzonera laciniata L. subsp. laciniata	Tekecen, Tekesakalı, Dedesakalı	Aerial parts	Eaten (raw)
Asteraceae	Taraxacum serotinum (Waldst. & Kit.) Poiret	Karakavuk, Karavuk, Karagavuk, Karaok, Karagoğuk, Dedekovuğu	Young leaves	Eaten (raw), eaten with bread, salad
Asteraceae	Tragopogon latifolius Boiss. var. angustifolius Boiss.	Yemlik, Yelmik, Yilmik, Yermük, Yelmük	Young aerial parts	Eaten (raw), eaten with bread, salad, Cooked with Capsella bursapastoris
Asteraceae	Tragopogon longirostris Bisch. Ex. Schultz Bip var. abbreviatus Boiss.	Yemlik, Yelmik, Yilmik, Yermük, Yelmük	Young aerial parts	Eaten (raw), eaten with bread, salad, Cooked with Capsella bursapastoris
Brassicaceae	Capsella bursa-pastoris (L.) Medik	Kuş otu, Kedi cıynağı, Cıynak	Young aerial parts	Eaten (raw), salad, roasted, pita filling, meal
Brassicaceae	Sinapis arvensis L.	Zamzam, Namzam, Hardal otu, Haldar otu	Young leaves	Eaten (raw), Salad (after boiled), pie
Caryophyllaceae	Silene vulgaris (Moench) Garcke var. vulgaris	Kırşayık, Kırşavuk, Kırışayık, Gıvşayık mancar, Kıvşayak, Kıvırşayık, Kıvşayık, Kıvırşak, Kuşayak	Young aerial parts	Meal, soup, roasted then added yogurt with garlic, boiled then added yogurt with garlic, roasted with egg
Caryophyllaceae	Stellaria media (L.) Vill. subsp. media	Kuşgöyneği, Kazayak otu, Kazayağı, Civcivboğan	Young aerial parts	Eaten (raw), roasted
Chenopodiaceae	Chenopodium album L. subsp. album var. album	Yağlıca, Yağlı pancar, Yağlı mancar, Küllük otu	Young aerial parts	Meal, pie, roasted, soup, boiled then added yogurt with garlic, cooked with rice then added yogurt with garlic
Cucurbitaceae	Bryonia alba L.	Ülüngür, Ürüngül, Sığırkuyruğu	Young shoots	Eaten (after boiled), roasted
Lamiaceae	Origanum sipyleum L.	Kekik, Ciğer otu	Aerial parts	Tarhana
Lamiaceae	Thymus sipyleus subsp. rosulans (Borbás) Jalas	Kekik	Aerial parts	Spice, tea
Malvaceae	Malva sylvestris L.	Ebegümeci, Ebemgümeci, gömeç otu	Aerial parts	Meal, salad, pie, roasted
Malvaceae	Malva sylvestris L.	Ebegümeci, Ebemgümeci, gömeç otu	Leaves	Cooked as sarma



Table 1. Some wild edible plants of Tosya District (Continued)

Family	Botanical name	Local name	Used part	Usage
Plantaginaceae	Plantago lanceolata L.	Sinirli yaprak, Sinirli ot, Sinir Otu	Leaves	Roasted, pie, tea
Plantaginaceae	<i>Plantago major</i> L. subsp. <i>major</i>	Sinirli yaprak, Sinirli ot, Sinir Otu	Leaves	Roasted, pie, tea
Polygonaceae	Polygonum cognatum Meissn.	Madımak, Maşmak, Madımalak	Aerial parts	Meal, pie, soup, roasted then added yogurt with garlic, salad, roasted with egg
Polygonaceae	Rumex acetosella L.	Kuzu kulağı, Ekşimük	Young leaves	Eaten (raw)
Polygonaceae	Rumex crispus L.	Efelek, Evelek, Öfelek, Mancar efeleği, Kökükızıl Mancar	Leaves	Cooked as sarma, soup
Polygonaceae	Rumex obtusifolius L. subsp. subalpinus (Schur) Celak	Pancar, Mancar	Leaves	Roasted, meal, roasted with egg
Polygonaceae	Rumex scutatus L.	Acıgıcı, Süpürge otu, Acıkulak, Acıoğlak	Young leaves	Eaten (raw), meal
Portulacaceae	Portulaca oleracea L.	Semizotu, Soğukluk otu	Aerial parts	Eaten (raw), Soup with yogurt named 'Ayranlıaşı', meal, salad, pie, roasted then added yogurt with garlic
Portulacaceae	Portulaca oleracea L.	Semizotu, Soğukluk otu	Leaves	Eaten (raw), salad, cacik
Urticaceae	Urtica dioica L.	Isırgan Otu	Aerial parts	Meal, Salad, pie, roasted, boiled, soup, tea

As a result of this study 22 wild edible taxa belonging to 11 families are reported. Among them, 20 taxa were found to be used as food source, one takson were found to be used as herbal tea and 2 taxa were found to be used as spice. The most common families which are used as food: Polygonaceae, Asteraceae, Brassicaceae and Caryophyllaceae are listed as. Most common used part of plants as food is the aerial parts (13 taxa) and leaves (10 taxa). However, more than one parts of some plants are used as food. Most common usage form is roasted then added yogurt with garlic, eaten (raw) and salad. Also, a lot of plants in the list, can be prepared as food in many different usage forms. For example, *Malva sylvestris* and *Rumex crispus* leaves are cooked as sarma. It's aerial parts are cooked as meals, pie or soups.

10 of these plants are eaten raw while 15 are consumed by cooking, some of them are consumed in both ways. Especially, fresh herbs which are grown in early spring time, eatan raw. On the other hand, *Origanum sipyleum's* aerial parts used for to make a traditional soup named 'Tarhana', it is sold in Bazaar, in the late summer. Furthermore, *Scorzonera laciniata* subsp. *laciniata*, *Silene vulgaris* var. *vulgaris*, *Bryonia alba* and *Urtica dioica* are the other wild plant species which sold in the Bazaar.

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